

BIOGRAPHICAL SKETCH

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NAME Donald C. Rojas, Ph.D.		POSITION TITLE Associate Professor of Psychiatry and Neuroscience	
eRA COMMONS USER NAME rojasd			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Colorado State University, Fort Collins, CO	B.S.	1990	Psychology
Colorado State University, Fort Collins, CO	M.S.	1992	Psychology
Colorado State University, Fort Collins, CO	Ph.D.	1995	Behavioral Neuroscience
Univ. of Colorado Health Sciences, Denver, CO	Post-Doc	1995-97	Developmental Psychobiology

A. Positions and Honors

- 1993- Instructor, College of Education, University of Denver, CO
- 1997 International Congress for Schizophrenia Research Young Investigator Award
- 1997-1999 National Alliance for Research on Schizophrenia and Depression Young Investigator Award
- 1997- Adjunct Assistant/Associate Professor of Psychology, University of Denver (DU), CO
- 1997-2004 Assistant Professor of Psychiatry, UCD, Denver, CO
- 2004- Associate Professor of Psychiatry, UCD, Denver, CO
- 2004- Adjunct Associate Professor of Engineering and Computer Science, DU, CO
- 2004-2007 Member, Adult Psychopathology and Disorders of Aging Study Section, NIH
- 2006- Member, Neuroscience Program Faculty, UCD, Denver, CO
- 2008- Director, UCD Magnetoencephalography Laboratory, Denver, CO

B. Selected Peer Reviewed Publications

1. **Rojas**, D. C., & Bennett, T. L. (1995). Single versus composite score prediction with the Halstead-Reitan Battery and Stroop Test in mild brain injury. *Archives of Clinical Neuropsychology*, 10(2), 101-110.
2. Bane, A.J., **Rojas**, D. C., Indermaur, K. I., Avery, D. D., & Bennett, T. L. (1996). Adverse effects of dextromethorphan on the spatial learning of rats in the Morris water maze. *European Journal of Pharmacology*, 302, 7-12.
3. Reite, M., Teale, P., Sheeder, J., **Rojas**, D. C., & Schneider, E. (1996). MEG evidence of abnormal early auditory memory function in schizophrenia. *Biological Psychiatry*, 40, 299-301.
4. Reite, M., Sheeder, J., Teale, P., Adams, M., Richardson, D., Simon, J., Jones, R., & **Rojas**, D. C. (1997). Magnetic source imaging evidence of sex differences in cerebral lateralization in schizophrenia. *Archives of General Psychiatry*, 54, 433-440.
5. **Rojas**, D. C., Teale, P., Sheeder, J., Simon, J., & Reite, M. (1997). Sex-specific expression of Heschl's gyrus functional and structural changes in paranoid schizophrenia. *American Journal of Psychiatry*, 154, 1655-1662.
6. **Rojas**, D. C., Walker, J. R., Sheeder, J. L., Teale, P. D., & Reite, M. L. (1998). Developmental Changes in Refractoriness of the Neuromagnetic M100 in Children. *Neuroreport*, 9, 1261-1265
7. Teale, P., Sheeder, J., **Rojas**, D. C., Walker, J., & Reite, M. (1998). Sequential source model of the M100 exhibits inter-hemispheric asymmetry. *Neuroreport*, 9, 2647-2652.
8. Arciniegas, D., **Rojas**, D. C., Sheeder, J., Teale, P., & Reite, M. (1999). The thalamus and the schizophrenia phenotype: Failure to replicate reduced volume. *Biological Psychiatry*, 45 (10), 1329-1335.

9. Reite, M., Teale, P., **Rojas**, D. C., Arciniegas, D., & Sheeder, J. (1999). Bipolar disorder: Anomalous brain asymmetry associated with psychosis. *American Journal of Psychiatry*, 156 (8), 1159-1163.
10. Reite, M., Teale, P., **Rojas**, D. C., Sheeder, J., Arciniegas, D. (1999). Schizoaffective disorder: Evidence for reversed cerebral asymmetry. *Biological Psychiatry*, 46, 133-136.
11. Beresford, T., Arciniegas, D., **Rojas**, D. C., Sheeder, J., Teale, P., Aasal, R., Sandberg, E., & Reite, M. (1999). Hippocampal to pituitary volume ratio: A specific measure of reciprocal neuroendocrine alterations in alcohol dependence. *Journal of Studies on Alcohol*, 60(5), 586-588.
12. **Rojas**, D. C., Teale, P., Sheeder, J., & Reite, M. (1999). Sex differences in the refractory period of the 100-ms latency auditory evoked magnetic field. *Neuroreport*, 10 (16), 3321-3325.
13. **Rojas**, D. C., Sheeder, J. L., Teale, P., Walker, J. R., Robertson, B. A., Selig, S., & Reite, M. (2000). MEG measurement of auditory sensory memory persistence via the M100 in children and adults. In C. Aine, Y. Okada, G. Stroink, S. Swithenby, and C. Wood (Eds.), *Advances in Biomagnetism Research: Biomag96*, New York: Springer-Verlag, 856-859.
14. Teale, P., Reite, M., **Rojas**, D. C., Sheeder, J. & Arciniegas, D. (2000). Fine structure of the auditory M100 in schizophrenia and schizoaffective disorder. *Biological Psychiatry*, 48, 1109-1112.
15. **Rojas**, D. C., Teale, P., Sheeder, J. L. & Reite, M. L. (2000). Neuromagnetic alpha suppression during an auditory Sternberg task: Evidence for a serial, self-terminating search of short-term memory. *Cognitive Brain Research*, 10, 85-89.
16. Arciniegas, D. B., Topkoff, J., **Rojas**, D. C., Sheeder, J., Teale, P., Young, D., Sandberg, E., Reite, M.L. & Adler, L.E. (2001). Reduced hippocampal volume in association with P50 nonsuppression following traumatic brain injury. *Journal of Neuropsychiatry and Clinical Neurosciences*, 13(2), 213-221.
17. Patwardhan, A. J., Eliez, S., Warsofsky, I. S., Glover, G. H., White, C. D., Giedd, J. N., Peterson, B. S., **Rojas**, D. C. & Reiss, A. L. (2001). Effects of image orientation on the comparability of pediatric brain volumes using three-dimensional MR data. *Journal of Computed Tomography*, 25 (3), 452-457.
18. **Rojas**, D. C., Benkers, T. L., Rogers, S. J., Teale, P.J., Reite, M.L. & Hagerman, R.J. (2001). Auditory evoked magnetic fields in adults with fragile X syndrome. *Neuroreport*, 12, 2573-2576.
19. Teale, P., Benkers, T., **Rojas**, D. C. & Reite, M. (2002). Determination of the sphere origin for MEG source modeling in temporal regions. *Physics in Medicine and Biology*, 47, 1161-1166.
20. Harris, J. G., Young, D. A., **Rojas**, D. C., Cajade-Law, A., Scherzinger, A., Nawroz, S., Adler, L. E., Cullum, C. M., Simon, J. & Freedman, R. (2002). Increased hippocampal volume in schizophrenic's parents with ancestral history of schizophrenia. *Schizophrenia Research*, 55(1), 11-17.
21. **Rojas**, D. C., Bawn, S., Carlson, J., Teale, P. & Reite, M. (2002). Alterations in tonotopy and auditory cerebral asymmetry in schizophrenia. *Biological Psychiatry*, 52, 32-39.
22. **Rojas**, D. C., Bawn, S., Benkers, T. L., Hagerman, R.J., Reite, M.L. & Rogers, S. J. (2002). Absence of planum temporale asymmetry in adults with autism. *Neuroscience Letters*, 328 (3), 237-240.
23. Teale, P., Carlson, J., **Rojas**, D. C. & Reite, M. (2003). Reduced laterality of the source generators of the auditory steady state field in schizophrenia. *Biological Psychiatry*, 54(11), 1149-53.
24. Reite, M., Teale, P., **Rojas** D. C., Benkers T.L. & Carlson, J. (2003). Anomalous somatosensory cortical localization in schizophrenia. *American Journal of Psychiatry*, 160(12), 2148-53
25. Haynes, S. D., **Rojas**, D. C. & Viney, W. (2003). Free will, determinism and punishment. *Psychological Reports*, 93, 1013-1021.
26. **Rojas**, D.C., Smith, J.A., Benkers, T.L., Camou, S.L., Reite, M.L. & Rogers, S.J. (2004). Hippocampus and amygdala volumes in the parents of children with autistic disorder. *American Journal of Psychiatry*, 161, 2038-2044.
27. **Rojas**, D. C., Camou, S., Reite, M. & Rogers, S. J. (2005). Planum temporale volume in children and adolescents with autism. *Journal of Autism and Developmental Disabilities*, 35(4), 479-486.
28. Greenblatt, R.E., Ossadtchi, A., Pflieger, M.E. & **Rojas**, D.C. (2005). Local linear estimators and a statistical framework for event related analysis. *International Journal of Bioelectromagnetism*, 7(2), 22-25.
29. **Rojas**, D.C., Maharajh, K., Teale, P.D., Ramos-Kleman, M., Benkers, T.L., Carlson, J.P. & Reite, M.L. (2006). Development of the 40-Hz steady state auditory evoked magnetic field from ages 5 to 52. *Clinical Neurophysiology*, 117, 110-117.
30. Tregellas, J. R., Davalos, D. B. & **Rojas**, D. C. (2006). Effect of task difficulty on the functional anatomy of temporal processing. *Neuroimage*, 32, 307-315.

31. Peterson, E., Schmidt, G. L., Tregellas, J. R., Winterrowd, E., Kopelioff, L., Hepburn, S., Reite, M. & **Rojas**, D. C. (2006). A voxel-based morphometry study of gray matter in parents of children with autism. *Neuroreport*, 17(12), 1289-1292.
32. **Rojas**, D.C., Peterson, E., Winterrowd, E., Reite, M.L., Rogers, S.J. & Tregellas, J.R. (2006). Regional gray matter volumetric changes in autism associated with social and repetitive behavior symptoms. *BMC Psychiatry*, 6, 56.
33. Wilson, T.W., **Rojas**, D.C., Reite, M.L., Teale, P.D. & Rogers, S.J. (2007). Children and adolescents with autism exhibit reduced MEG steady-state gamma responses. *Biological Psychiatry*, 62, 192-7.
34. Frey, K.L., **Rojas**, D.C., Anderson, A. & Arciniegas, D.B. (2007). Comparison of the GOAT and O-log as measures of post-traumatic amnesia. *Brain Injury*, 21(5), 513-520.
35. Arciniegas, D.B., **Rojas**, D.C., Ramos Kleman, M., Asherin, R. & Reite, M.L. (2007). Neurological signs and cognitive performance distinguish between adolescents with and without psychosis. *Journal of Neuropsychiatry and Clinical Neurosciences*, 19(3), 266-273.
36. Tregellas, J.R., Davalos, D.B., **Rojas**, D.C., Waldo, M.C., Gibson, L., Wylie, K., Du, Y.P. & Freedman, R. (2007). Increased hemodynamic response in the hippocampus, thalamus and prefrontal cortex during abnormal sensory gating in schizophrenia. *Schizophrenia Research*, doi:10.1016/j.schres.2006.12.033.
37. Maharajh, K., Abrams, D., **Rojas**, D.C., Teale, P. & Reite, M.L. (2007). Auditory steady state and transient gamma band activity in bipolar disorder. *International Congress Series*, 1300, 707-710.
38. **Rojas**, D.C., Slason, E. Teale, P.D. & Reite, M.L. (2007). Neuromagnetic evidence of broader auditory cortical tuning in schizophrenia. *Schizophrenia Research*, 97 (1-3), 206-214.
39. Wilson, T.W., Hernandez, O.O., Asherin, R.M., Teale, P.D., Reite, M.L. & **Rojas**, D.C. (2008). Cortical gamma generators suggest abnormal auditory circuitry in early-onset psychosis. *Cerebral Cortex*, 18, 371-378.
40. Schmidt, G. L., Kimel, L.K., Winterrowd, E., Pennington, B.F., Hepburn, S.L. & **Rojas**, D.C. (2008). Impairments in phonological processing and non-verbal intellectual function in parents of children with autism. *Journal of Clinical and Experimental Neuropsychology*, 30 (5), 557-567.
41. Wilson, T.W., **Rojas**, D.C., Teale, P.D., Hernandez, O., Asherin, R.C. & Reite, M.L. (2007). Aberrant functional organization and maturation in early-onset psychosis: Evidence from magnetoencephalography. *Psychiatry Research: Neuroimaging*, 156 (1), 59-67.
42. Winterrowd, E., Hepburn, S., Kopelioff, L., Reite, M.L. & **Rojas**, D.C. (2008). Relationship of psychiatric disorders to measures of child function in parents of children with autism. *Mental Health Aspects of Developmental Disabilities*, 11(2), 42-54.
43. Tregellas, J.R., Shatti, S., Tanabe, J.L., Martin, L.F., Gibson, L., Wylie, K. & **Rojas**, D.C. (2007). Gray matter volume differences and the effects of smoking on gray matter in schizophrenia. *Schizophrenia Research*, 97(1-3), 242-249.
44. **Rojas**, D.C., Maharajh, K., Teale, P.D. & Rogers, S.J. (2008). Reduced neural synchronization of gamma-band activity in parents of children with autism. *BMC Psychiatry*, 8, 66, PMID: 18673566.
45. Teale, P., Collins, D., Maharajh, K., Rojas, D.C., Kronberg, E. & Reite, M. (2008). Cortical source estimates of gamma-band amplitude and phase are different in schizophrenia. *Neuroimage*, 42 (4), 1481-1489.
46. Wilson, T.W., Slason, E., Hernandez, O.O., Asherin, R., Reite, M.L., Teale, P.D. & **Rojas**, D.C. (in press). Aberrant high-frequency desynchronization of cerebellar cortices in early-onset psychosis. *Psychiatry Research: Neuroimaging*.
47. Reite, M., Teale, P., **Rojas**, D.C., Reite, E., Asherin, R., Hernandez, O. (in press). MEG auditory evoked fields suggest altered structural/functional asymmetry in primary but not secondary auditory cortex in bipolar disorder. *Bipolar Disorders*
48. Tregellas, J.R., Ellis, J., Shatti, S. Du, Y. **Rojas**, D.C. (in press). Urban noise elicits increased hippocampal, thalamic and prefrontal hemodynamic responses in schizophrenia. *American Journal of Psychiatry*.

C. Research Support (last 3 years)

No Project Code: Rojas (PI)

9/1/07-8/30/09

Autism Speaks

Gamma-band synchronization as a local connectivity endophenotype in autism

The long-term objective of this project is to establish problems with gamma-band electrophysiological activity as an endophenotype for autism research by demonstrating the deficit in first-degree relatives.

5 R01 MH60214-04 Rojas (PI)

4/1/04-3/31/09

NIH/NIMH

Functional Organization of Audition in Schizophrenia

The long-term objective of this project is to investigate the organization of the auditory cortex in patients with schizophrenia using magnetoencephalography, and to correlate changes in this organization to structural alterations based on MRI measurements and to auditory symptom experience.

R01 HL075366-04 Aloia (PI)

07/01/04-06/30/09

NIH/NHBI

Subcortical Hyperintensities in Sleep Apnea Syndrome

The specific aims of this study are to: (1) examine the relationship between sleep apnea and SH in the elderly, to (2) determine the degree to which endothelial function mediates this relationship, and (3) to determine the degree to which SH predict functional decline longitudinally.

R01 MH63442 Rojas (PI)

4/1/01-3/31/06

NIH/NIMH

Brain Lateralization in Adolescent Psychosis

The aim of this project is to evaluate changes in cerebral lateralization in adolescents ages 13-17 with psychotic spectrum illnesses.

R01 MH64502-01 Reite (PI)

08/30/01-09/01/06

NIH/NIMH

The Brain & Psychosis: Asymmetry and Cortical Organization

This project examines evidence for brain lateralization and cortical reorganization in psychotic illness (esp. affective psychosis) using MEG and MRI-based metrics.

R01 MH47476-11 Reite (PI)

03/01/96-4/30/09

NIH/NICHD

MEG Evoked Fields in Schizophrenia

The long-term objective of this project is to compare cerebral lateralization across multiple psychotic illnesses in adult patient groups, specifically schizophrenia, schizoaffective disorder, and bipolar disorder.

R01 CI000224-01 Arciniegas (PI)

9/1/04-8/31/06 (1 yr no cost ext.)

CDC

Neurobehavioral and Functional Outcome following West Nile Virus Infection of the Central Nervous System

A prospective study of the consequences of neuroinvasive West Nile virus infections. The study will focus on individuals with West Nile encephalitis admitted for acute rehabilitation and will evaluate both the types and severity of neurobehavioral and functional impairments in this population as well as the change in those impairments during the first year after infection.